SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01110J

SUMMARY OF WORK

02/05

V=1, VV
PART 1 GENERAL
1.1 SUMMARY 1.2 PROJECT DESCRIPTION 1.2.1 Civil/Site 1.2.2 Structural 1.2.3 Architectural 1.2.4 Mechanical 1.2.5 Electrical 1.2.6 Special Construction 1.3 REFERENCES 1.4 SUBMITTALS 1.5 SAFETY/ACCIDENT PREVENTION PLAN SUBMITTALS 1.6 SUBCONTRACT DRAWINGS
1.6.1 Layout of Work and Elevations 1.7 WORK RESCHEDULING 1.8 OCCUPANCY OF PREMISES/ACCESS REQUIREMENTS 1.8.1 Facility Contents 1.8.1.1 Responsibilities 1.8.1.2 New Material and Construction Equipment 1.8.2 Construction Area Access And Control 1.8.2.1 Access and Control Requirements 1.8.2.2 Security 1.9 STORAGE, TRANSPORTATION AND PROTECTION 1.9.1 Storage
1.9.2 Hazardous Materials 1.10 GOVERNMENT-FURNISHED MATERIALS 1.11 ON-SITE PERMITS 1.11.1 Utility Outage Requests and Connection Requests 1.11.1.1 Requirements 1.11.2 Construction Permit 1.11.3 Borrow, Excavation, And Welding Permits 1.12 SALVAGE AND DISPOSAL OF MATERIAL AND EQUIPMENT 1.12.1 Removal 1.12.2 Salvage Of Material And Equipment 1.12.2.1 Salvage Items 1.12.3 Waste Disposal 1.12.4 Cleanup
1.12.4 Cleanup 1.12.5 Salvage And Disposal Record Keeping

1.13 RADIO FREQUENCY MANAGEMENT PROCEDURES

1.14 COMMUNICATION SECURITY

PART 2 PRODUCTS

- 2.1 SUBCONTRACTOR PROVIDED RECORD DRAWINGS
- 2.2 J-BOSC PROVIDED SURVEY SUPPORT

PART 3 EXECUTION

- 3.1 [CCAFS] [PAFB] [KSC] DELIVERIES
 - 3.1.1 Non-Hazardous Deliveries
 - 3.1.2 Hazardous Deliveries
- 3.2 RESPONSIBILITIES
- 3.3 EXCAVATION
 - 3.3.1 Work Clearance Request
 - 3.3.1.1 Location of Buried Structures and Utility Lines
 - 3.3.1.2 Excavation, Trenching, and Backfilling
 - 3.3.1.3 Cutting of Roads, Streets, Driveways, and Paved Areas
- 3.4 LAND SURVEYING REQUIREMENTS
 - 3.4.1 Subcontractor Provided Survey Support
- 3.5 WELDER QUALIFICATION REQUIREMENTS
 - 3.5.1 Welding And Brazing
- 3.6 HOISTING AND LIFTING
 - 3.6.1 Lifting Operation Plan
- 3.7 QUALITY CONTROL
 - 3.7.1 Licenses
- 3.8 SUPERINTENDENT
- -- End of Section Table of Contents --

	WAY SUPPORT (SGS) *******************************	SGS 01110J (FEBRUARY 2005)
	SECTION 01110J	
	SUMMARY OF WORK 02/05	
******	**********	********
	NOTE: Delete, revise, or add to the section to cover project requirement for designer information and will no final project specification.	s. Notes are
******	This medium scope specification cove for basic description and special ad instructions of the selected project	ministration
*******	***********	
	NOTE: Describe the project and the involved in sufficient detail so as general picture which is self contai	to present a
	refer to the drawings or to other pa specification. Mention peculiar or and monitoring of archaeological res paragraph should be used verbatim in synopsis for advertising the project	rts of the hazardous work, ources. This preparing the
	NERAL	
1.1 SUMMA	RY	
Air Force	to be performed under this project is Station. Cape Canaveral Air Force St Road 401, north of Port Canaveral.]	
Force Base	to be performed under this project is e. Patrick Air Force Base is located Cocoa Beach on State Road A1A.]	s located at Patrick Air approximately three miles
[The work	to be performed under this project is	s located at KSC.]
	to be performed under this project con uipment and materials to [].	nsists of providing the
	d of performance for this scope of wor	rk is [] calendar days
1.2 PROJE	CT DESCRIPTION	
1.2.1 Civ	il/Site	

1.2.2	Structural	
[_1	
1.2.3	Architectural	
[_1	
1.2.4	Mechanical	
[_]	
1.2.5	Electrical	
[_]	
1.2.6	Special Construction	
[_]	
1.3 R	EFERENCES	
	ublications listed below for enced:	orm a part of this section to the extent
	AMERICAN WELDING SOCIET	Y (AWS)
AWS B	2.1	(2000) Specification for Welding Procedure and Performance Qualification
AWS D	1.1/D1.1M	(2004) Structural Welding Code - Steel
	ASME INTERNATIONAL (ASM	E)
ASME	BPVC SEC IX	(2001) Boiler And Pressure Vessels Code - Welding And Brazing Qualifications
	U.S. AIR FORCE (USAF) -	45TH SPACE WING (SWI)
AFI 3	3-118	(2002) Radio Frequency (RF) Spectrum Management
	U.S. NATIONAL ARCHIVES	AND RECORDS ADMINISTRATION (NARA)
29 CF	R 1910	(2002) Occupational Safety and Health Standards
29 CF	R 1926	(2002) Safety and Health Regulations for Construction
1.4 S	SUBMITTALS	
The f	ollowing shall be submitted	d in accordance with Section 01330 SUBMITTA

PROCEDURES in sufficient detail to show full compliance with the specification:

SD-01 Preconstruction Submittals

Submit the following items to the SGS Subcontract Administrator

(throughout this document, the term "SGS Subcontract Administrator" shall mean "SGS Subcontract Administrator or his/her Representative:"

Accident Prevention Plan
Lifting Operation Plan
Hazardous Material, Safety and/or Site Plans
Performance of work Plan
Utility Outage Requests
Connection Requests
Borrow Requests
Excavation Requests
Brush/Tree Clearing Requests
Welding Requests

SD-07 Certificates

Borrow Permits Burning Permits Excavation Permits Welding Permits

1.5 SAFETY/ACCIDENT PREVENTION PLAN SUBMITTALS

The following shall be submitted for this work:

[Accident Prevention Plan will be submitted by the Subcontractor to show that they will not expose government property, the public, subcontract workers, or of any other subcontractor employees to hazards that they may create. The Subcontractor is required to follow all OSHA regulations. Details in the Accident Prevention Information will delineate how government property, the public and workers from other employers will be protected. This Plan shall not include details of the Subcontractor's Internal Safety Program for the protection of their workers since that is an issue between the Subcontractor and OSHA. This information will be submitted to the SGS Subcontract Administrator for delivery to the Wing Ground Safety Office (45SW/SEG).]

[In addition,] Hazardous Material, Safety and/or Site Plans will be submitted to the SGS Subcontract Administrator for delivery to SGS Safety, Health and Training Directorate as outlined in attachment titled "SAFETY INFORMATION AND REQUIREMENTS." These plans SHALL include details of the Subcontractor's Internal Safety Program for the protection of their workers.

1.6 SUBCONTRACT DRAWINGS

The following drawings accompany this specification and are a part thereof.

Drawing	g]	No.	[]	
Sheets	1	th:	rouq	ſh	[]

Subcontract drawings, maps, and specifications will be furnished to the Subcontractor either hard copy or electronic at the Contractor's discretion. Drawings are to be provided in a .dgn or .dwg format. Reference publications will not be furnished.

Subcontractor shall immediately check furnished drawings and notify the Contractor of any discrepancies.

The drawings indicate the general location and arrangement of existing conditions. Existing underground utilities and interior utility runs shown on these drawings may not be complete and the locations are approximate. Prior to developing any construction drawings and/or work plans it is strongly recommended that the Subcontractor visit the site to determine the complexity of the work and the existing conditions. The Subcontractor shall verify all dimensions, connections, and othr field conditions to determine the size and quantity of equipment and materials. Conditions which are obvious/visible or which should be reasonably anticipated by the Subcontractor on inspection will not be considered under the Differing Site Conditions clause of this subcontract.

1.6.1 Layout of Work and Elevations

Dimensions and elevations indicated in the layout of work shall be verified by the Subcontractor. Discrepancies between the drawings, specifications and/or existing conditions shall be referred to the SGS Subcontract Administrator in writing, for review, before the affected work is performed. Failure to make notification shall place the responsibility upon the Subcontractor to carry out the work in a satisfactory and workmanlike manner.

1.7 WORK RESCHEDULING

Contractor shall allow for a maximum of [] days where construction
activity is prohibitive. Further allowance for [] days of excavation
and subsurface activity abeyance shall be imposed where other construction
activities are permitted. Government will provide 24 hour notification
each time the restrictions are invoked.

Normal duty hours for work shall be from [____] a.m. to [_____] p.m., Monday through Friday. Requests for additional work shall require written approval from the SGS Subcontract Administrator 7 days in advance of the proposed work period.

1.8 OCCUPANCY OF PREMISES/ACCESS REQUIREMENTS

Building(s) [will] [will not] be occupied during performance of work under this Subcontract. If occupied, occupancy notifications will be posted in a prominent location in the work area.

Before work is started, the Subcontractor shall submit a plan to the SGS Subcontract Administrator or Representative for approval. The plan shall include a sequence of procedures, means of access, space plan for storage of materials and equipment, and use of approaches, corridors, and stairways.

1.8.1 Facility Contents

1.8.1.1 Responsibilities

The schedule of work shall be closely coordinated with the SGS Subcontract Administrator. Unless otherwise stated, remove all furniture, equipment, curtains, drapes, pictures, blackboards, etc., as required to perform the work. Any movable or fixed furniture, equipment, carpet, etc., remaining in the work area shall be covered and protected from damage. All relocated items shall also be protected from damage throughout the construction period. After completion of work and prior to final acceptance, replace removed items in their original location.

[The entire area will not be available to the Subcontractor at one time. The following phases of work and procedures are required:

- a. [____]
- b. [___]]

[Demolition of [mechanical, electrical, etc.] system shall not be started until replacement equipment is on site.]

1.8.1.2 New Material and Construction Equipment

Only material and construction equipment designated for performance of Subcontract work may be stored at the construction site or located in Government-controlled warehouses or shop facilities.

1.8.2 Construction Area Access And Control

1.8.2.1 Access and Control Requirements

Exclusive use or control of any area will not be allowed as the Government and [Range] [Site] Contractors must have access to all areas at all times. All work must be scheduled around operational constraints.

Work in and around the project will not require security escorts. A Limited Unescorted Access System is in place. This will require the Subcontractor to provide a list of names, social security numbers and citizenship of the employees that will need to access into this controlled area. The Subcontractor will be held responsible/accounting for "Bullet" badges. Area familiarization classes are required.

1.8.2.2 Security

Entry into a secured area is a privilege that can be denied, suspended or revoked. A badge may not be used for sightseeing or cutting through KSC/CCAFS. Personnel are authorized to go only to and from their work locations. When entering the main gates, the badge must be held face out toward the officer. Also, the badge must be displayed at all times above the waist with the picture and/or expiration date visible. The swapping of badges between employees is prohibited and violators may be barred from KSC/CCAFS/PAFB. Badges must not be worn outside KSC/CCAFS/PAFB or when off duty. Do not leave the badge in a vehicle where it can be stolen. Report lost or stolen badges immediately to your supervisor. When an employee is terminated, their supervisor must pick up the badge, escort the employee to the gate and return the badge.

All personnel are subject to search of their vehicles and property. Alcoholic beverages, including "non-alcoholic" beer and malt beverages are not allowed. Firearms of any make or caliber, ammunition, air guns, large knives and dangerous weapons of any kind are not permitted.

SGS Security Police is the authorized law enforcement agency with issuance of citations. Comply with all traffic laws and the Florida Financial Responsibility Act.

All hand carried items (briefcases, gym bags, packages, etc.) will have an identification tag or label. Unidentified items that arouse concerns for explosive devices may be confiscated or destroyed.

1.9 STORAGE, TRANSPORTATION AND PROTECTION

1.9.1 Storage

Subcontractor may be assigned a storage area upon written request to the SGS Subcontract Administrator. Subcontractor's request shall indicate dimensions of trailer, size of storage area, and utilities required. Space at one of the base central storage areas will be assigned to the Subcontractor by the SGS Subcontract Administrator. All trailers shall be in good and safe condition.

The Subcontractor is responsible for contacting the local phone company, Bell South, to request a telephone number and line for their office trailer.

[Office trailers and long term (longer than one year) storage trailers shall be painted to match the base standard color "Conch Shell", as noted in the base Facilities Excellence guide. Trailers located on site for short term storage, 10 working days or less, will not need to meet this requirement. In addition, all office trailers and long term storage trailers shall be skirted along the entire perimeter with a wood lattice material. This skirting shall be painted to match the same trailer color as described above. Subcontractor shall be responsible for the storage and protection of all his materials and equipment, whether incorporated into the job or not. The Subcontractor shall also be responsible for enclosing the assigned storage area with a minimum 6' high privacy fence. The fence shall be black vinyl coated galvanized fencing, with a black nylon screen covering as approved by the SGS Subcontract Administrator. The fence shall be in good repair and continuously maintained throughout the construction. The intent is to conceal construction materials, equipment and debris from adjacent occupied areas during the life of the Subcontract. Upon completion of the Subcontract, the Subcontractor shall be responsible for removing the fence and restoring the site to its original condition.]

1.9.2 Hazardous Materials

Hazardous Materials & petroleum product containers shall be stored and handled as outlined in Safety Information attachment and in Section 01355J ENVIRONMENTAL PROTECTION.

1.10 GOVERNMENT-FURNISHED MATERIALS

Government/Contractor will furnish to the Subcontractor the following

property to be incorporated or installed in the work, or used in its performance. Such property will be furnished as Freight On Board (F.O.B.) at [____]. Maintain and protect Government/Contractor furnished property once it is on the construction site.

ITEM	DESCRIPTION	QUANTITY	QUANTITY AVAILABLE			
[]	[]	[]	[]	[]		
[]	[]	[]	[]	[]		

Quantities indicated for the above-listed items marked with an asterisk are estimates. It is the intention of the Contractor to furnish all quantities of the asterisk items required to complete the work as specified.

Quantities stated for the above items not marked with an asterisk are all that will be furnished by the Contractor. Subcontractor shall furnish any additional quantities required.

1.11 ON-SITE PERMITS

1.11.1 Utility Outage Requests and Connection Requests

Work shall be scheduled to hold outages to a minimum.

Utility outages and Connection Requests required during the execution of work that affect existing systems shall be arranged at the convenience of the Contractor which may require scheduling outside of the regular working hours or on weekends, at no additional cost to the Contractor.

Each Utility Outage and Connection Requests shall state the system involved, area involved, approximate duration of outage, and the nature of work involved.

1.11.1.1 Requirements

A written request for a utilities outage (electricity, communication, water, compressed air, gas, steam, air conditioning, etc.) must be submitted to the SGS Subcontract Administrator at least 14 calendar days in advance of the desired outage. Approval is required prior to scheduling any outage. All limitations noted on the approved outage authorization shall be carefully observed. Final verbal coordination shall be made 4 hours prior to the outage by calling the SGS Subcontract Administrator or his representative. A utilities outage without prior approval and coordination is prohibited.

Since many systems are critical to facility operations, the number and duration of utility outages shall be [kept to an absolute minimum] [limited to a four (4) hour maximum at any one time, unless otherwise approved by the SGS Subcontract Administrator due to unusual circumstances.] All work effort shall be coordinated and sufficient manpower, materials, and equipment shall be provided to complete the work within the authorized outage window.

Existing utility services may be interrupted only when approved by the SGS Subcontract Administrator. The interruption shall be scheduled at a time of minimum demand on the utility, convenient to the Contractor. Outages on

weekends, holidays, or evenings shall be performed at no additional cost to the Contractor.

The Subcontractor shall make all necessary arrangements to schedule and provide connections to existing utilities and to cause minimum interruption to system operation. All temporary utility hook-ups and disconnects shall be made by the Subcontractor.

If the Subcontractor fails to comply with a scheduled outage, the cost to reschedule the outage will be deducted from the final subcontract payment.

1.11.2 Construction Permit

***********	******	**********	******
The following paragrap	ph is used only	for work on Al	F
real property			
**********	******	******	******

All construction work requires a construction Permit, AF 103. This permit is processed by the Contractor and provided to the Subcontractor. It is required prior to the start of any construction at the project site and must be posted on site during all construction activities.

1.11.3 Borrow, Excavation, And Welding Permits

Borrow Requests, Excavation Requests, Brush/Tree Clearing Requests, and Welding Requests shall be submitted to the SGS Subcontract Administrator. Permits will be obtained by the SGS Subcontract Administrator or representative, within 14 calendar days, for distribution to the Subcontractor.

ACTIVITY	SUBMISSION DATE	SUBMISSION FORM
[Borrow Permits [Burning Permits [Excavation Permits [Welding Permits	days prior to work]]]
Permits shall be post	ted at a conspicuous location in	n the construction area.
Burning of trash or a	rubbish is [not] permitted at [] [on project site]
	n or rubbish shall be done in stacked by the authority having jus	-

Prior to performing any excavation work or any surface penetrations 6 inches or deeper (such as driving stakes more than 6 inches in the ground) on any ground surface, the Subcontractor shall obtain from the SGS Subcontract Administrator or representative, assistance for locating current subsurface utilities for the particular area to be worked on. Subcontractor shall stake out subsurface high voltage cables, communication cables, and pipe lines indicated within the scope of the work contemplated.

Subcontractor shall notify the SGS Subcontract Administrator, 14 days prior to the start of excavation work or surface penetration, to enable the SGS Subcontract Administrator to review measures being taken to prevent hazard to employees and possible damage to subsurface utilities, and allow Joint Base Operations Support Subcontractor (JBOSC) time to respond to scanning requests. Where emergency conditions preclude the 14 days advance

notification, the Subcontractor shall immediately inform the SGS Subcontract Administrator of his intention to initiate work prior to actual start of activity.

After excavation permit has been obtained and prior to any excavating, verify with Cape Support that there are no Test Control Periods (TCPs) that would prevent excavation.

Subcontractor shall temporarily halt any machine excavation work or other surface penetration when approaching within 10 feet of the existing utility line until the Subcontractor has exposed the utility line by hand excavation to fix its location.

1.12 SALVAGE AND DISPOSAL OF MATERIAL AND EQUIPMENT

1.12.1 Removal

Remove and/or relocate only those materials or items of equipment specifically indicated in the drawings and specifications. Removal operations shall be performed in such a manner that adjacent areas, installed equipment, or existing utilities are not damaged. Repair all openings that occur due to removal or demolition operations to match adjacent, existing surfaces. Any damage incurred during removal operations shall be repaired at no additional cost to the Contractor.

NOTE: If there are not to be any salvaged material or equipment, delete 1.12.3 in its entirety.

1.12.2 Salvage Of Material And Equipment

All salvageable materials or items to be removed shall remain the property of the Federal Contractor. Salvageable items are listed below in the paragraph entitled, "Salvage Items". [Salvageable items shall be transported to and deposited at the Defense Reutilization and Marketing Office (DRMO) at Cape Canaveral Air Force Station.]

Salvageable material must be segregated and separated into categories before transport. All salvageable items delivered to DRMO shall be accompanied by a properly prepared [DD Form 1348] [NASA 7-49]. This form will be furnished by the SGS Subcontract Administrator. A signed copy by DRMO reflecting the turn in materials shall be furnished to the SGS Subcontract Administrator.

Subcontractor shall maintain property control records for material or equipment designated as salvage. Subcontractor's system of property control may be used if approved by the SGS Subcontract Administrator. Subcontractor shall be responsible for storage and protection of salvaged materials and equipment until disposition by the SGS Subcontract Administrator.

Material to be salvaged and reinstalled by the Subcontractor shall be protected during removal and stored to prevent damage.

For reference purposes salvageable is defined as: items, material, equipment which can be refitted, reworked, and restored and put to use or sold. The SGS Subcontract Administrator shall have sole discretion as to determining whether any particular item is salvageable.

1.12.2.1 Salvage Items

The	following	equipment	and	materials	shall	be	salvaged	for	the	Contractor:

- a. [___]
- b. [___]
- c. []

Any additional items shall be inspected by the SGS Subcontract Administrator to determine whether salvageable or debris. Salvageable material delivery shall also be accompanied by a properly prepared [DD Form 1348] [NASA 7-49].

1.12.3 Waste Disposal

Unless otherwise directed non-salvageable material and debris shall be removed from work areas and disposed of daily. [The Subcontractor may use Cape Canaveral Air Force Station (CCAFS) landfill for disposal of CCAFS and PAFB C&D debris in accordance with Florida Department of Environmental Protection (FDEP) permits. Asbestos waste shall be disposed of at the CCAFS asbestos mono-fill unless otherwise directed by the SGS Subcontract Administrator.]

*****	*****	*****	*****	******	*****	******
	The	sentences	in brackets	above is for	r CCAFS only	
*****	******	*****	*****	*********	*****	******

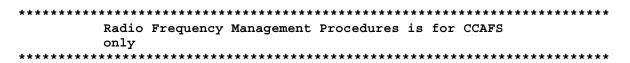
Refer to Section 01355J ENVIRONMENTAL PROTECTION for further waste disposal and record keeping requirements.

1.12.4 Cleanup

Upon completion of the construction each day, the Subcontractor shall leave the work premises in a clean, neat and workmanlike condition, satisfactory to the SGS Subcontract Administrator. Additional information is contained in Section 01355J and Safety addendum.

1.12.5 Salvage And Disposal Record Keeping

The Subcontractor shall maintain a disposal log of all materials removed from the job site. This inventory shall include waste materials disposed in landfills and materials sold for salvage and recycled. The disposal log form is available from the SGS Subcontract Administrator. At a minimum the Subcontractor shall identify the type of materials, material weight, disposition (landfill or recycle), receiving facility (name, address and phone number) and net disposal costs or rebates including container costs, hauling and tipping fees as applicable. The Subcontractor shall submit two copies of the disposal log and all dump tickets and receipts associated with disposal to the SGS Subcontract Administrator at the completion of the project.



[1.13 RADIO FREQUENCY MANAGEMENT PROCEDURES

The following procedures shall be followed in obtaining radio frequency authorization:

The policy and procedures contained in AFI 33-118 shall be followed to obtain frequency allocation approval of electronic devices and USAF Radio Frequency Assignment.

]1.14 COMMUNICATION SECURITY

Government telecommunications networks are continually subject to interception by hostile/unfriendly intelligent organizations. Therefore, the DOD has authorized the military departments to conduct COMSEC monitoring and recording of telephone calls from, or terminating, DOD organizations. The Subcontractor shall assume the responsibility for ensuring frequent dissemination of this information to all employees dealing with official DOD information.

PART 2 PRODUCTS

************************	*
NOTE: Engineer needs to select either 2.1,	
"Subcontractor Provided Record Drawings" or 2.2,	
"J-BOSC Provided Survey Support". Do not use both	
2.1 and 2.2.	
***************************************	*

2.1 SUBCONTRACTOR PROVIDED RECORD DRAWINGS

Record drawings shall reflect all civil site developments such as new facility and/or land modifications, external structural changes to aboveground structures, and changes to underground structures and utilities external to facilities located on lands owned by or held in leasehold interest of the federal government.

Acceptance of the completed drawings by the Contractor certifies accuracy and completeness of the documents. Nonconformity with any of the following requirements will result in withholding of vendor payments. (*Note: This paragraph is approved for inclusion in NASA contracts only.)

Information in record drawings shall include, but not be limited to:

- a. Location of all new lines, conduits, valves, fittings, fire hydrants, meters, terminal points using at least two ties to permanent points (manholes, power poles, curbs, or storm water inlets), or GPS coordinates with accuracy to at least 1 meter, or better if more stringent accuracy requirements are specified in other sections of this subcontract. An acceptable station and offset system may be used for service lines and fittings only.
- b. Location of new lines from property easement lines or edges of pavement at intervals of 300 feet.

- c. All utility routing and interface changes shall be reflected on the drawings to scale and defined with sufficient dimensions.
- d. The Subcontractor shall provide support for obtaining surveyed coordinates for facility footprint corner and underground structures and utilities external to facilities by submitting Form ENG-F-CE06 to the SGS Subcontract Administrator at least five (5) working days prior to foundation construction or open excavation as notification to the J-BOSC Survey Services Department who shall obtain the coordinates.
- e. Record drawing prints will be drawn at a minimum scale of 1 inch = 100 feet. Areas requiring additional detail shall be enlarged as necessary.
- f. Record drawings shall also be provided in digital format. Geospatially referenced files shall be in ESRI GIS Geodatabase, ESRI GIS Shapefile, Microstation DGN, AutoCAD DWG or DXF file format. New like items shall be contained in the same levels to permit easy conversion to GIS layers.
- g. Use spatial reference as:

Horizontal accuracy: All surveys/drawings shall be referenced to Florida State Plane Coordinate System, East Zone, North American Datum 1983/1990 adjustment based on Second Order Class II horizontal control monument.

Vertical accuracy: All surveys shall be referenced to North American Veritcal Datum (NAVD) 1988. The survey shall include a description of the reference benchmarks from which the NAVD has been determined.

- h. All lines, letters, and details shall be sharp, clean, and fully legible.
- i. One reproducible print and one digital copy in an electronic storage media are required for submittal.

2.2 J-BOSC PROVIDED SURVEY SUPPORT

For projects wherein the Subcontractor shall not be required by the Contractor to provide certified record drawings, the J-BOSC Survey Services Department shall provide the J-BOSC RPIS Office the required certified survey data to update CCSGIS Survey work supporting this effort shall be funded either through baseline subcontract funding, through inclusion in project-to-project funding, or Type 3 J-BOSC Work Order. Funding source will be at the discretion of the Contractor.

For all land surveys, the Subcontractor shall notify J-BOSC Survey Services Department, through the SGS Subcontract Administrator, five (5) days in advance and prior to completion of foundation construction for all civil site developments and/or any changes to underground structures and utilities external to facilities including by not limited to construction, modification or burying of underground utilities on lands owned by or held in leasehold interest of the federal government. The Subcontractor shall provide notification to the J-BOSC Survey Services Department through the submittal of ENG-F-CE06.

PART 3 EXECUTION

3.1 [CCAFS] [PAFB] [KSC] DELIVERIES

3.1.1 Non-Hazardous Deliveries

All deliveries of construction material and equipment to job sites (including cement trucks) shall use the CCAFS South Gate for access. To the maximum extent possible, deliveries shall be scheduled between 1000 and 1500 hours to avoid the peak traffic volume times. The driver of each delivery vehicle and their passengers must have the following:

- a. A valid photo ID; and
- b. A valid bill of lading; and
- c. A known delivery point on [CCAFS] [PAFB] [KSC]; and
- d. An on-base or local phone number and POC to vouch for delivery

Only deliveries that can be verified will be allowed to proceed. Special deliveries, deliveries after normal business hours, or deliveries that cannot negotiate through the barricades must be coordinated in advance.

All delivery vehicles shall be inspected by Security Forces personnel prior to being allowed to proceed onto the installation.

3.1.2 Hazardous Deliveries

[Deliveries of fuel, large volume of chemicals, or other hazardous materials shall comply with this section. [All deliveries shall use the [CCAFS] [PAFB] South Gate for access.] Suggest deliveries be scheduled between 1000 and 1500 hours to avoid the peak traffic volume times. All delivery vehicles must have the information required for non-hazardous deliveries (valid photo ID, valid bill of laden, known delivery point, and phone number and POC to vouch for delivery). Only deliveries that can be verified will be allowed to proceed. In addition, hazardous deliveries must be scheduled a minimum of 48 hours in advance for escort by Security Forces to and from job site. Subcontractors shall contact the [CCAFS Security at 853-2121] [PAFB Security Forces at 494-2000] to arrange for hazardous delivery escorts. Deliveries that have not arranged in advance for Security Forces escorts will be turned away and must be re-scheduled.]

3.2 RESPONSIBILITIES

The Contractor reserves the right to revoke badging authority, escort authority and/or base access privileges for any person, at any time and for any reason. The Subcontractor understands that the Contractor has made every attempt to identify potential delays associated with background checks and badging requirements and that such delays have been considered in the construction schedule. Delays resulting from the Subcontractor's failure to follow the badging guidelines above shall not be considered grounds for Subcontract extension or compensation.

3.3 EXCAVATION

3.3.1 Work Clearance Request

[Subcontractor shall obtain (from technical representative), prepare, and

properly complete AF FORM 103.] The Subcontractor shall provide coordination for location of buried structures and utility lines before beginning any work involving digging/excavation. [The Technical representative shall be the first and the last to coordinate on the AF FORM 103.]

3.3.1.1 Location of Buried Structures and Utility Lines

Accurately locate and stake structures and utility lines indicated. Provide a drawing indicating the full extent of digging/excavation (width, depth, and length of trench or hole) and attach to the AF FORM 103. If unidentified underground utilities are encountered during excavation, notify the SGS Subcontract Administrator and cease operations until they are properly identified.

3.3.1.2 Excavation, Trenching, and Backfilling

Open only those trenches for which material is ready to be placed. As soon as approved by the Technical Representative, trenches shall be backfilled and tamped as required by the drawings and specifications. As a minimum, the topsoil shall be replaced and the disturbed area shall be grassed by seeding, watered and maintained for a minimum of 60 calendar days. Stockpile excavated materials a minimum of two feet from the edge of the excavation. Mark or barricade construction work which may present a hazard.

3.3.1.3 Cutting of Roads, Streets, Driveways, and Paved Areas

Repair roads, streets, and paved parking areas which require surface cutting under this project within 10 calendar days after initial cutting. The topping shall be a minimum of 2 inches of asphalt to match existing (concrete topping on asphalt areas is not allowed). Mark, barricade, and illuminate construction work on or near roads or streets which may present a traffic hazard per OSHA 29 CFR 1910. The Subcontractor shall provide signaling, lighting, and barricades in the construction area conforming to the Manual on Uniform Traffic Control Devices, OSHA 29 CFR 1926.201 and 1926.202. Closures of Streets, parking lots, and other traffic areas will not be permitted unless approved by the SGS Subcontract Administrator after written request 14 calendar days before the scheduled closure.

3.4 LAND SURVEYING REQUIREMENTS

Land surveying, to include all projections and datum points, shall be required for all modifications affecting civil site plans (e.g., utilities, additions, new construction or storm water modifications). The survey shall be performed by a licensed surveyor.

3.4.1 Subcontractor Provided Survey Support

Subcontract drawings shall reflect all civil site developments such as new facility and/or land modifications, external structural changes to aboveground structures, and changes to underground structures and utilities external to facilities located on lands owned by or held in leasehold interest of the federal government.

3.5 WELDER QUALIFICATION REQUIREMENTS

3.5.1 Welding And Brazing

Before assigning any welder/brazer to work in pipe and/or structural fabrication on this project, names shall be provided to the SGS Subcontract Administrator of all welders/solderers together with written certification that these welders/brazers have passed Qualification Tests as prescribed by AWS D1.1/D1.1M, AWS B2.1, and/or ASME BPVC SEC IX, as applicable. All piping and/or structural welds shall be performed by persons holding current certifications. If testing is required, the test and certification shall be by an independent organization regularly engaged in the testing and certification of welders. Date of certification for each welder/brazer shall not be over one year prior to date of Subcontract award.

3.6 HOISTING AND LIFTING

3.6.1 Lifting Operation Plan

The Subcontractor shall have a Lifting Operation Plan and procedure that is fully in accordance with the requirements of OSHA regulations, and shall include drawings/sketches of lifting slings, lifting equipment, and tag lines. The plan shall show weights, center of gravity, and clearances of load over entire lift. Plans shall have details showing any structural mounting of hoisting equipment on sheaves or structural steel, and shall show loading calculations on any such structural mounting showing forces, weights, turning moments, etc. A procedure shall accompany the drawings describing all lifting operations. Use spreader bars wherever necessary to prevent hoisting cables from contacting equipment/material.

3.7 QUALITY CONTROL

3.7.1 Licenses

The Subcontractor or their Lower Tier Subcontractors shall be licensed by the State of Florida or have an equivalent out-of-state license in all areas applicable to this Subcontract. Refrigerant Technicians shall provide the SGS Subcontract Administrator copies of their EPA approved Technician Certificates. Asbestos Abatement Subcontractor shall be licensed by the State of Florida.

3.8 SUPERINTENDENT

Provide name and qualifications and past experience for review. Designate a competent superintendent who shall have full authority to act for the Subcontractor and who shall be the primary contact with the Contractor until acceptance. The Subcontractor's superintendent shall be at the job site at all times and shall have full authority to act for the Subcontractor.

⁻⁻ End of Section --